

# Math 330 - Number Systems

Spring 2012

Nathan Reff

## Basic Info:

Course Meetings: MWF 9:40-10:40 in S2 G42, R 10:05-11:30 in FA 244  
Email: reff@math.binghamton.edu  
Web Page: <http://www.math.binghamton.edu/grads/reff/m330>  
Office Hours: TBA  
Text: **The Art of Proof: Basic Training for Deeper Mathematics**  
by Matthias Beck and Ross Geoghegan (ISBN-13: 978-1441970220)

**Prerequisite:** Math 222: Calculus II with a grade of C or better.

**Grading:** Your final grade will be determined as follows:

Homework	50%
Midterm	20%
Final	30%

You also have the opportunity to earn participation points which will be added to your course score. You can earn these points by answering questions, asking relevant questions, etc. Coming to class is expected and will not get you these participation points alone. I would like everyone to be a part of the classroom discussions.

Borderline cases of grades can be adjusted up or down based on your attendance, class participation, homework, and trend (patterns in the grades as the semester progresses, for example, steady improvement is good, but a weak final exam is bad).

**Homework:** Homework problems will be assigned during each class meeting. This course is writing-intensive, and most of the written work will be proofs. All proofs are expected to be complete and correct. Incorrect proofs will be returned to you for resubmission, and you will not receive a grade from me until they are **completely correct**. The final due date for each problem is two weeks after the problem is assigned. I allow a total of **4 submissions of each proof** (i.e., three rewrites). I will return your work to you with the **first** major error underlined. You will have to figure out what is wrong and fix it.

I highly recommend discussing problems and making progress on proofs with others. However, you must turn in your own original proof separately. Copying and being copied from will be penalized!

In addition to discussing homework problems with others, I encourage *everyone* to **come to office hours**. When you get stuck, this is a perfect opportunity for me to help.

No late homework will be accepted (except in extraordinary situations). Please staple your homework when necessary.

Other than assigned problems you should be reading the text every day and keeping up with the pace of the course.

**Exams:** Please see the course website for more details. Doing the homework is the best way to prepare yourself.

**Exam/Final Policy:** No calculators, cellphones, mp3 players, slide rules, abaci, Addiators, Napier's bones, Difference/Analytical Engines, Pascalinas, Antikythera mechanisms, etc. may be used. In other words I want you to only use your brain and the hard work you put into this course to earn your grade. You may not talk to each other in the classroom while other students are working, even if you are done. Please keep your eyes on your own paper. Work through the problem on your own and you will do fine (and save us both a lot of trouble).

**Cheating and Academic Honesty:** Cheating of any kind will not be tolerated. It is disrespectful to the University, your classmates and to me. If you are caught cheating you will receive a 0 on the assignment. Additionally, depending on the severity of the cheating, you may receive an F in the course. Furthermore you will be subject to the University's disciplinary action.

**Attendance Policy:** Binghamton University has a 75% attendance policy (details of this are located in the bulletin, available at <http://bulletin.binghamton.edu/>). I will not enforce any additional policy other than this. This course will move rather quickly so I suggest you only miss class for a good reason (meaning an excused absence). If you must miss a class it is your responsibility to learn the missed material quickly to keep up with the course.

**Excused Absences:** If you cannot attend one of the exams you should submit a written reason for your absence **in advance** of the exam date. I would appreciate letting me know at least 3 days in advance if you are going to miss a class. In emergency situations you can leave a message for me with the Math Department Secretaries at (607) 777-2147. The decision to allow make-up exams will be made on a case by case basis, but proper documentation is always necessary. No make-up exams will be given without advance notice. If you miss a the midterm or final with an unexcused absence, you will receive a 0 for that particular assignment.

**Extra Credit & "Curving":** I will not curve any exam or course grade. I will not be giving anyone extra credit. This way everyone has the same advantage in the course. In the rare event of something like an unfair question, I will make appropriate steps to give everyone the same chance to get credit where it is due.